

### **REMARKS**

Applicants thank the Examiner for the thorough examination given the present application. Further to the Response filed on March 26, 2009, Applicants are filing this Supplemental Response. Applicants respectfully request that the Examiner consider the remarks given in both the Response filed on March 26, 2009 and this Supplemental Response. Applicants have attempted to eliminate as much repetition as possible.

### **Status of the Claims**

Claims 1-18 are pending in the above-identified application. Claims 7-18 are currently withdrawn from consideration. As such, claims 1-6 stand ready for further action on the merits.

In view of the following remarks, Applicants respectfully request that the Examiner withdraw all rejections and allow the currently pending claims.

### **Issues under 35 U.S.C. § 103(a)**

1) The Examiner has rejected claims 1-3 under 35 U.S.C. § 103(a) as being obvious over Toshiaki et al. '600 (JP 2002-079600) in view of Nakahigashi et al. '746 (US 4,866,746) in further view of Haaland et al. '081 (US 5,991,081).

2) The Examiner has rejected claims 4-6 under 35 U.S.C. § 103(a) as being obvious over Toshiaki et al. '600, Nakahigashi et al. '746, and Haaland et al. '081 in view of Scholz et al. '186 (US 5,585,186).

Applicants respectfully traverse. Reconsideration and withdrawal of the outstanding rejections are respectfully requested based on the following considerations.

### **Legal Standard for Determining Prima Facie Obviousness**

MPEP 2141 sets forth the guidelines in determining obviousness. First, the Examiner has to take into account the factual inquiries set forth in *Graham v. John Deere*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), which has provided the controlling framework for an obviousness analysis. The four *Graham* factors are:

- (a) determining the scope and content of the prior art;

- (b) ascertaining the differences between the prior art and the claims in issue;
- (c) resolving the level of ordinary skill in the pertinent art; and
- (d) evaluating any evidence of secondary considerations.

*Graham v. John Deere*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966).

Second, the Examiner has to provide some rationale for determining obviousness. MPEP 2143 sets forth some rationales that were established in the recent decision of *KSR International Co. v Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007). Exemplary rationales that may support a conclusion of obviousness include:

- (a) combining prior art elements according to known methods to yield predictable results;
- (b) simple substitution of one known element for another to obtain predictable results;
- (c) use of known technique to improve similar devices (methods, or products) in the same way;
- (d) applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;
- (e) “obvious to try” – choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success
- (f) known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art;
- (g) some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

As the MPEP directs, all claim limitations must be considered in view of the cited prior art in order to establish a *prima facie* case of obviousness. See MPEP 2143.03.

#### Distinctions over the Cited References

Further to the remarks provided in the Response filed on March 26, 2009, Applicants submit the following additional remarks.

As can be seen from claim 1, the antireflection film of the present invention is characterized in that the film simultaneously has a smooth surface (arithmetic mean surface roughness (Ra) of not more than 1.5 nm, i.e., characteristic (b) in claim 1), a high surface silicon atom content (10 atom % or more, i.e., characteristic (c) in claim 1) and a low reflectance (reflectance of not more than 1 %, i.e., characteristic (d) in claim 1).

In the present invention, such an antireflection film is obtained by the “transfer foil method” described at page 67, line 14 to page 73, line 5 of the present specification. For easy understanding of the transfer foil method, Applicants have attached hereto Fig. A which illustratively shows how the antireflection film of the present invention is produced by the transfer foil method in Example 1 of the present application. As apparent from Fig. A, by the transfer foil method, a smooth surface is formed at the interface between the low refraction layer 3 and the release layer 2, and this smooth surface of the low refraction layer 3 is exposed by removing the release layer 2 from the low refraction layer 3. The thus obtained antireflection film of the present invention simultaneously has a high surface silica content and a smooth surface, whereby a low reflectance and a high hardness are simultaneously achieved.

On the other hand, the upper surface of the low refraction layer 3, which is opposite to the interface with release layer 2 is exposed during the formation of the low refraction layer 3. Therefore, by drying the silica sol used for forming low refraction layer 3, the upper surface becomes rough to some extent. In Toshiaki et al. ‘600, the surface of an antireflection film is formed in such a manner as in the case of the above-mentioned rough upper surface of low refraction layer 3. In this case, due to the rough surface of the antireflection film, the hardness of the film may be improved; however, the reflectance of the film becomes poor as compared to that in the present invention (see Table 1 of the previously submitted partial English translation of Toshiaki et al. ‘600). Further, when the surface of the film is rendered smooth in Toshiaki et al. ‘600, both reflectance and hardness become poor (also see the above-mentioned Table 1 of Toshiaki et al. ‘600).

Therefore, significant patentable distinctions exist between the present invention and the teachings of Toshiaki et al. ‘600 even in view of Nakahigashi et al. ‘746, Haaland et al. ‘081, and optionally Scholz et al. ‘186. Furthermore, the cited references or the knowledge in the art

provide no reason or rationale that would allow one of ordinary skill in the art to arrive at the present invention as claimed. Therefore, a *prima facie* case of obviousness has not been established, and withdrawal of the outstanding rejections is respectfully requested. Any contentions of the USPTO to the contrary must be reconsidered at present.

### CONCLUSION

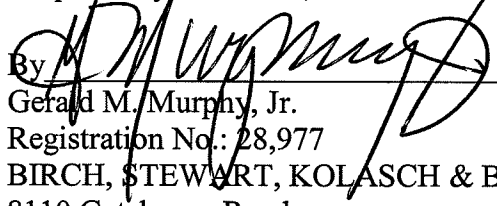
A full and complete response has been made to all issues as cited in the Office Action. Applicants have taken substantial steps in efforts to advance prosecution of the present application. Thus, Applicants respectfully request that a timely Notice of Allowance issue for the present case clearly indicating that each of claims 1-6 are allowed and patentable under the provisions of title 35 of the United States Code.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Garth M. Dahlen, Ph.D., Esq., Reg. No. 43,575, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated:

Respectfully submitted,

By   
Gerald M. Murphy, Jr.  
Registration No.: 28,977  
BIRCH, STEWART, KOLASCH & BIRCH, LLP  
8110 Gatehouse Road  
Suite 100 East  
P.O. Box 747  
Falls Church, Virginia 22040-0747  
(703) 205-8000  
Attorney for Applicants

Attachment: Figure A

Fig. A (Process performed in Example 1 of the present application)

